

Evaluation of Efficiency Activities in the Industrial Sector Undertaken in Response to Greenhouse Gas Emission Reduction Targets

Lynn Price, Stephane de la Rue du Can, Hongyou Lu
Energy Analysis Department
Environmental Energy Technologies Division
Lawrence Berkeley National Laboratory

Arpad Horvath
Department of Civil and Environmental Engineering
University of California-Berkeley

ABSTRACT

The 2006 California Global Warming Solutions Act calls for reducing greenhouse gas (GHG) emissions to 1990 levels by 2020. Meeting this target will require action from all sectors of the California economy, including industry. The industrial sector consumes 25% of the energy used and emits 28% of the carbon dioxide (CO₂) produced in the state. Many countries around the world have national-level GHG reduction or energy-efficiency targets, and comprehensive programs focused on implementation of energy efficiency and GHG emissions mitigation measures in the industrial sector are essential for achieving their goals. A combination of targets and industry-focused supporting programs has led to significant investments in energy efficiency as well as reductions in GHG emissions within the industrial sectors in these countries. This project has identified program and policies that have effectively targeted the industrial sector in other countries to achieve real energy and CO₂ savings. Programs in Ireland, France, The Netherlands, Denmark, and the UK were chosen for detailed review. Based on the international experience documented in this report, it is recommended that companies in California's industrial sector be engaged in a program to provide them with support to meet the requirements of AB32, The Global Warming Solution Act. As shown in this review, structured programs that engage industry, require members to evaluate their potential efficiency measures, plan how to meet efficiency or emissions reduction goals, and provide support in achieving the goals, can be quite effective at assisting companies to achieve energy efficiency levels beyond those that can be expected to be achieved autonomously.